Critical Issues

Immediate Influx of Funding to FHWA Emergency Relief Account

The Louisiana Department of Transportation and Development (LA DOTD) is in urgent need of a substantial influx of federal funding. The cost of emergency repairs is rapidly mounting at a rate of approximately $1 million per day. As a result of the numerous short-term extensions of TEA-21, it was necessary to advance construct many projects to maintain a consistent, stable highway program. Consequently, our state cash reserves have been substantially diminished, necessitating immediate access to federal funds. We do not even have sufficient funds to pay for the emergency repairs already underway. We have requested the quick release of $100 million in FHWA Emergency Relief funds to address this issue. However, it is our understanding that the FHWA Emergency Relief account has been nearly depleted by previous events and was never replenished by Congress which may explain why FHWA has only allocated $5 million thus far. It should be noted that a $31 million contract is already underway for emergency repairs to the I-10 Twin Spans. Our cash flow problems will become acute in December 2005.

Timeliness of FEMA Reimbursement

A refined estimate by the LA DOTD of the damage to road and bridge infrastructure not normally eligible for federal-aid is $360 million. Some of this infrastructure is owned by the state; much of it is not. It is imperative that FEMA reimburse both the LA DOTD and local government transportation agencies in a timely manner. With damage of unprecedented magnitude, cash flow will become a critical issue for state and local governments if reimbursement of eligible expenses is not prompt. Without swift reimbursement, we cannot pay our bills nor can we conduct business. These first two issues are of the utmost importance to the reconstruction effort.

Waiver of Maximum Limit on FHWA Emergency Relief Funds

Federal law limits FHWA Emergency Relief funding to $100 million per state for each natural disaster or catastrophic failure event. The destruction from Hurricane Katrina is unprecedented. The cost to repair and replace the Interstate 10 bridge across the eastern end of Lake Pontchartrain (referred to as the I-10 Twin Spans) will far exceed $100 million. Our current estimate of damage repair costs to federal-aid highways in Louisiana is $1.1 billion. A waiver of the $100 million limit on FHWA Emergency Relief funding is critical to the recovery effort.

Waiver of 180-Day Limit for 100 Percent Reimbursement with Emergency Relief Funds

Under current Federal law, costs incurred within the first 180 days of a disaster are reimbursed fully. Upon expiration of the 180-day period, the federal share is reduced to 90 percent for Interstate highway repair work and 80 percent for all other federal-aid routes. Due to the magnitude of the disaster and the fact that some areas were not immediately accessible, it will not be possible for the LA DOTD to complete emergency repair work on all qualified projects within 180 days. For these reasons, a waiver of this provision or an extension of the deadline is needed. Further, without an extension, our regular highway program will be in jeopardy due to a lack of state matching funds.

Potential Dispute with FHWA and FEMA over Extent of Roadway Damage

Estimates of permanent repairs to highway infrastructure are presently being prepared in the parishes comprising the New Orleans Metropolitan Area. In Jefferson, Orleans, Plaquemines and St. Bernard Parishes, much of the roadway network was submerged for at least several days and in many cases for weeks. Many of the roadways may appear undamaged and thus may appear as though no permanent repairs are required. However, it is our opinion (as supported by technical information) that the base of the submerged roadways has been undermined or otherwise substantially weakened due to saturation. Once traffic, particularly truck traffic, returns to these roadways, pavement failures (e.g. potholes, ruts, etc.) will become evident. Removing the surface to effect base repairs and then repaving will be expensive but necessary. The FHWA and FEMA may resist recognizing these pavement failures as disaster-related damage since they will not be immediately apparent. The FHWA has already indicated that they will not accept any type of testing to determine damage in advance of actual pavement failure. This damage could potentially affect nearly 500 miles of federal-aid roads (FHWA) and approximately 1500 miles of non federal-aid roads (FEMA). The funding at stake is estimated at $557 million ($340 million for federal-aid routes and $217 million for non federal-aid routes).

Replacement of the I-10 Twin Spans

The section of Interstate 10 crossing the eastern end of Lake Pontchartrain (often referred to as the I-10 Twin Spans) was constructed over 40 years ago and was originally intended to be a six lane facility with no shoulders. It was striped for four lanes with shoulders due to safety concerns. The roadway on either side is six lanes; thus the Twin Spans are a bottleneck in the Interstate highway network. For bridges that require replacement, the Emergency Relief program provides for the upgrade of the facility to meet projected 20-year traffic demand. Therefore, we are requesting inclusion of a specification for six lanes in a direct appropriation, which is what Florida received last year. It is essential that we start the bridge replacement project early next year. We cannot afford any delays.

Population Surge in Baton Rouge, Lafayette, Houma and Hammond

The mass evacuation of the New Orleans Metropolitan Area has resulted in a surge in population, particularly in the Baton Rouge area, but also in Lafayette, Houma and Hammond. Consequently, many of the highways and streets in these areas are in gridlock. While some of the evacuees are already returning home, others will remain for a longer period; some will stay permanently. Immediate transportation improvements are needed to cope with this population influx. Most of these improvements are short-term, stop-gap measures that can be (and already are being) implemented quickly. We are not concerned with whether the money is appropriated through the FHWA or FEMA as long as reimbursement is timely. We are already incurring costs in dealing with this issue.

Waiver of Air Quality Conformity Requirement for Transportation Projects

The Baton Rouge area, which absorbed the largest number of evacuees, is presently in “lapse” status for transportation under the Clean Air Act, meaning that we cannot proceed with any regionally significant highway projects. Because of the recent surge in population, we are unable to conduct an accurate air quality analysis to demonstrate air quality conformity. Therefore, we need EPA to accept an analysis based on pre-Katrina socio-economic conditions and travel

patterns, or we need Congress to provide a **conformity determination waiver** for four years, similar to the waiver granted to New York City after the terrorist attack of September 11, 2001. A bill (H.R. 3946) to provide a waiver for Baton Rouge has been introduced in the House of Representatives.

Critical Flood Protection Needs

It is our understanding that the Corps of Engineers has already been appropriated $1.3 billion for repairs to the flood protection system, including repairing levee breaches, strengthening weak points in the levees, and repairing damaged control structures. This repair work will restore the levee system to the previous level of protection by June 1, 2006 (the beginning of the next hurricane system). It is imperative that these repairs be made promptly. It is also crucial that the entire levee system in coastal Louisiana be completed and upgraded to withstand a Category 5 hurricane. Our current estimate for this work is $20.0 billion from Morgan City, Louisiana to Slidell, Louisiana. We are presently evaluating the section of coast from Texas to Morgan City to determine the level of protection needed and the associated cost.

Anticipated Increases in Construction Costs

Prior to the hurricanes, construction costs were increasing significantly primarily due to the demand for materials. The massive reconstruction effort along the Gulf coast will undoubtedly magnify this problem. While it is not possible to quantify the cost increase at this time, those involved in the recovery need to be cognizant of the impact this will have on repair projects as well as already-planned construction projects. Based on the results of a few recent bids and internal discussions regarding the vastness of the devastation, the potential strain on contractors (materials, equipment, and labor), and soaring fuel costs, a contingency of 15 percent is recommended for budgetary purposes.

Special Appropriations Requests
Overview

LA DOTD's requests for special appropriations are provided below. The requests are in three major groupings: (1) requests specific to the recovery effort from Hurricanes Katrina and Rita; (2) critical transportation needs in preparation for future events; and (3) critical flood control needs in preparation for future events. Additional information pertaining to these requests is provided later in this document.

Hurricane Recovery

- Damage Repairs to Federal-Aid Roads and Bridges **(through FHWA)**
  - Need $1.1 billion in Emergency Relief funds
  - Need quick release of at least $100 million. At the current rate of expenditure, this will only last three to four months
  - **Specify replacement of I-10 Twin Spans with a 6-lane bridge** (it is eligible within current rules and was originally intended as a 6-lane facility but was striped as 4 lanes with shoulders for safety reasons)

- Damage Repairs to Non Federal-Aid Roads and Bridges **(through FEMA)**
  - Need $360 million in funding
  - Pays for repair of roads and bridges not eligible for federal highway funds
  - **Must have quick turnaround on reimbursements**

- Damage Repairs to Public Ports, Airports, Railroads, and Transit **(FAA, FTA, FRA, or FEMA)**
  - Need $487 million to repair public port infrastructure. Additionally, if the Mississippi River Gulf Outlet is closed to deep draft vessels, the relocation of public and private terminals will cost approximately $650 million. ($275 million for public terminals and $375 million for private terminals)
  - Need $330 million to repair public airport facilities (including interim capacity improvements at Baton Rouge Metropolitan Airport)
  - Need $210 million to repair damage to New Orleans Public Belt Railroad equipment and infrastructure, and lost operating revenue
  - Need $775 million to repair public transit infrastructure and replace equipment
  - Need $63 million to establish commuter rail service between Baton Rouge and New Orleans for 3 years to transport displaced citizens to their jobs while their homes are rebuilt in the greater New Orleans area

- Damage Repairs to Maritime System **(USACE, USCG, NOAA)**
  - Need $307 million to repair damage to the federal navigation system such as removing sunken vessels, repairing navigation aids, repairing locks, etc.
  - Need $5 million to repair damage to the state navigation system in Plaquemines Parish

- Assistance with LA 1 Improvements **(FHWA or FEMA)**
  - Hurricane has jeopardized financial viability of the project
  - Request $120 million for Leeville Bridge replacement
  - State will pay $ 60 million for 2-lane viaduct from Leeville to Port Fourchon using regular federal-aid highway funds and toll revenues.

- Assistance with Population Surge in Baton Rouge **(FHWA or FEMA)**
  - Huge increase in population as a result of the evacuation has gridlocked highways and streets in the Baton Rouge Metropolitan Area
  - Need $162 million to address immediate needs (traffic operations, traffic signal upgrades, etc., expanded transit service already funded through FEMA).
  - Request $110 million in federal highway funds be front-loaded to Louisiana so that programmed congestion-relief projects can be advanced. No net cost to the federal government since Louisiana would receive these funds over the next four or five years anyway.
  - Request $650 million to address widening on Interstates 10 and 12. Baton Rouge is a staging area for recovery and reconstruction; these Interstate highways are vital to the supply chain and to national commerce. These routes are also vital to evacuation as evidenced in Hurricane Katrina and previous events.
    (a) Widen I-10, LA 415 to I-12 - $350 million
    (b) Widen I-12, O'Neal Lane to LA 447 (Walker) - $150 million
    (c) Widen I-10, I-12 to LA 22 - $150 million
  - These requests have been coordinated with local officials

- Assistance with Population Surge in Lafayette, Houma, and Hammond **(FHWA or FEMA)**
  - Large increase in population as a result of the evacuation has gridlocked highways and streets in the Lafayette, Houma, and Hammond
  - Need $125 million to address immediate needs (traffic operations, expanded transit service, etc.) - $50 million each for Lafayette and Houma, $25 million for Hammond.

Subtotal	**$4.8 Billion**
Contingency at 15%	**$0.7 Billion**
TOTAL NEEDED	**$5.5 BILLION**

NOTE: Approximately $2.3 Billion may be available from previous Hurricane Katrina Disaster Relief Appropriations.

Critical Transportation Needs for Future Events

- Improve Traffic Operations Capabilities through ITS
  - Deploy ITS systems and equipment to improve traffic operations for evacuation and post- event recovery (variable message signs, flood gauges, etc.)
  - Upgrade several Interstate rest areas for use as emergency staging areas
  - Estimated cost = $80 million

- Elevate I-10 and I-610 in Orleans and Jefferson Parish
  - Interstate highways are vital for evacuation but also for access into a storm-ravaged area.
  - Nearly 20 miles of Interstate in Orleans and Jefferson Parishes is subject to flooding (much of it did flood)
  - Need $550 million to elevate I-10 and I-610 on structure or embankment

- Construct Phase 2 of the LA 1 Project
  - Phase 2 consists of a 2-lane viaduct from Leeville north to Golden Meadow
  - Project will complete the viaduct from Port Fourchon north to inside the hurricane protection levee (LA 1 north of the Leeville bridge did flood)
  - Estimated cost = $230 million

- Replace Belle Chasse Tunnel
  - Facility provides access to the Belle Chasse Navel Air Station and the west side of Plaquemines Parish
  - Facility is subject to flooding
  - Need $50 million to replace tunnel with a mid-level bridge

- Construct Houma-Thibodaux to I-10 Connector
  - Vital link for evacuating the Houma-Thibodaux Metropolitan Area
  - Need $150 million for initial two lanes of an ultimate four-lane facility

- Elevate US 90 (Future I-49)
  - US 90 is vital for evacuation of areas west of the Mississippi River (i.e., the Westbank) but also for post-hurricane access to the area
  - Need $625 million for the section from the Westbank Expressway to I-310
  - Need $950 million for the section from I-310 to Raceland

- Complete I-49 South
  - Critical for evacuation of coastal Louisiana
  - Need $350 million for the section from I-10 to airport
  - Need $300 million for the section from the airport to LA 88
  - Need $275 million for the section from Wax Lake Outlet to Berwick
  - Sections from Raceland to I-310 and I-310 to Westbank Expressway are covered under the preceding bullet: “Elevate US 90 (Future I-49).”

- Widen I-10 from Texas to US 165
  - Critical for evacuation of Louisiana as well as Southeast Texas
  - Estimated Cost = $330 million

- Assistance with Population Increase anticipated for North Shore
  - Migration to the north shore of Lake Pontchartrain is likely to accelerate as a result of Hurricane Katrina
  - Need $75 million in short-term improvements (traffic operations, traffic signal equipment, etc.)
  - Request $75 million to widen I-12 from LA 447 to I-55
  - Need $150 million to widen I-12 from I-55 to LA 21
  - Need $150 million to widen I-12 from LA 21 to I-10/I-59
  - Need $100 million to widen US 190 from the Causeway to US 11

- Special equipment for the Department of Transportation and Development
  - Satellite communications system
  - High water vehicles/amphibious vehicles
  - Generators
  - Bridge load testing equipment
  - Estimated total cost = $25 million

Subtotal	**$4.5 Billion**
Contingency at 15%	**$0.6 Billion**
TOTAL NEEDED	**$5.1 BILLION**

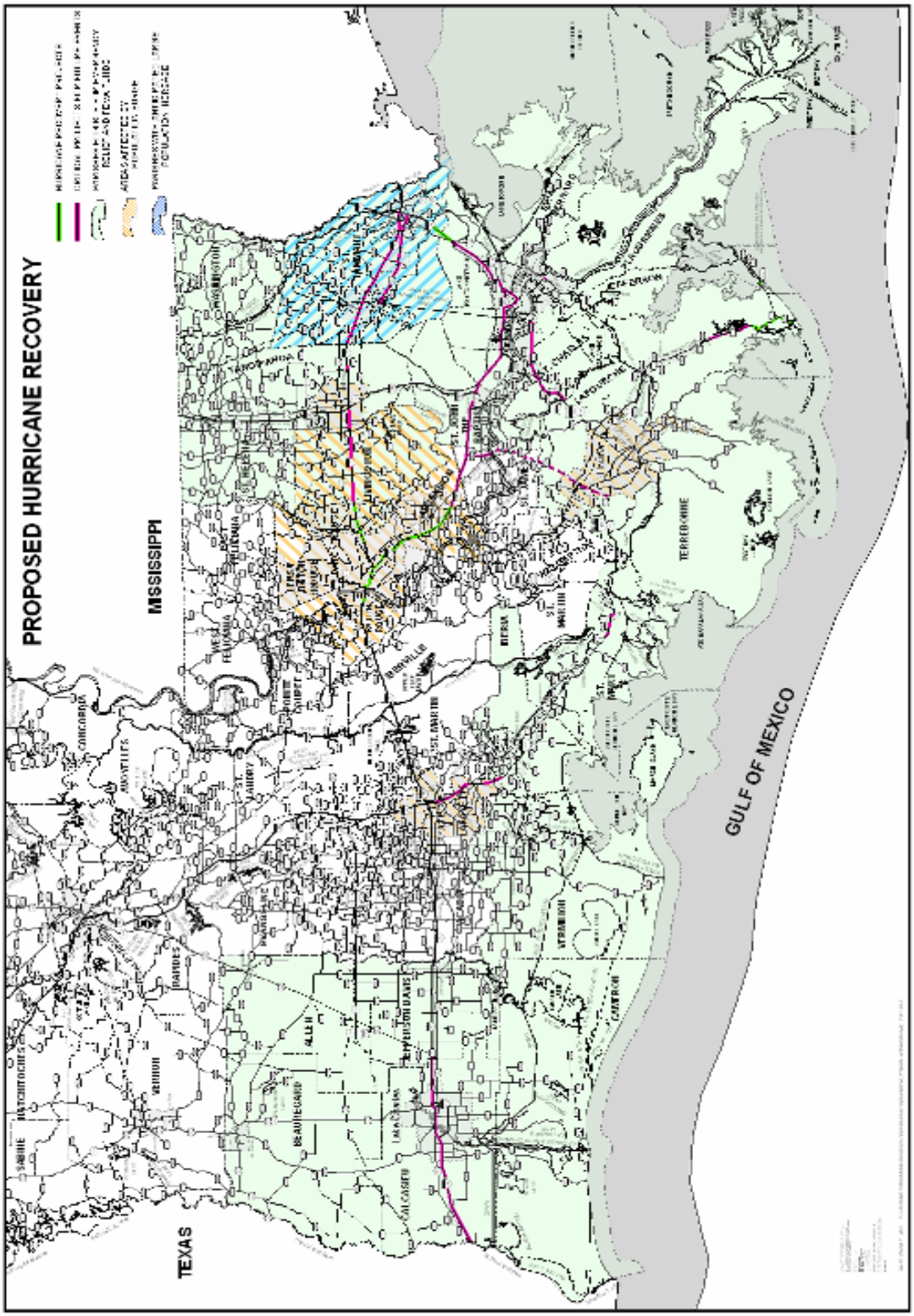
Critical Flood Protection Needs for Future Events

- Hurricane Protection Levees
  - $1.3 billion for levee repair and debris cleanup has already been appropriated to the Corps of Engineers including closing breaches, strengthening weak points, and repairing damaged control structures
  - Need $18.9 billion to complete and improve coastal Louisiana levee system to Category 5 from Morgan City, LA to Slidell, LA
  - Protection plan from Sabine River to Morgan City is under evaluation

- Pumping Capacity
  - Need $200 million to repair and upgrade the pumping capacity in the New Orleans Metro Area including waterproofing the equipment and providing emergency backup power

Subtotal	**$19.1 Billion**
Contingency at 15%	**$ 2.9 Billion**
TOTAL NEEDED	**$22.0 BILLION**

The following two maps illustrate many of the items presented in the above overview of special appropriations requests.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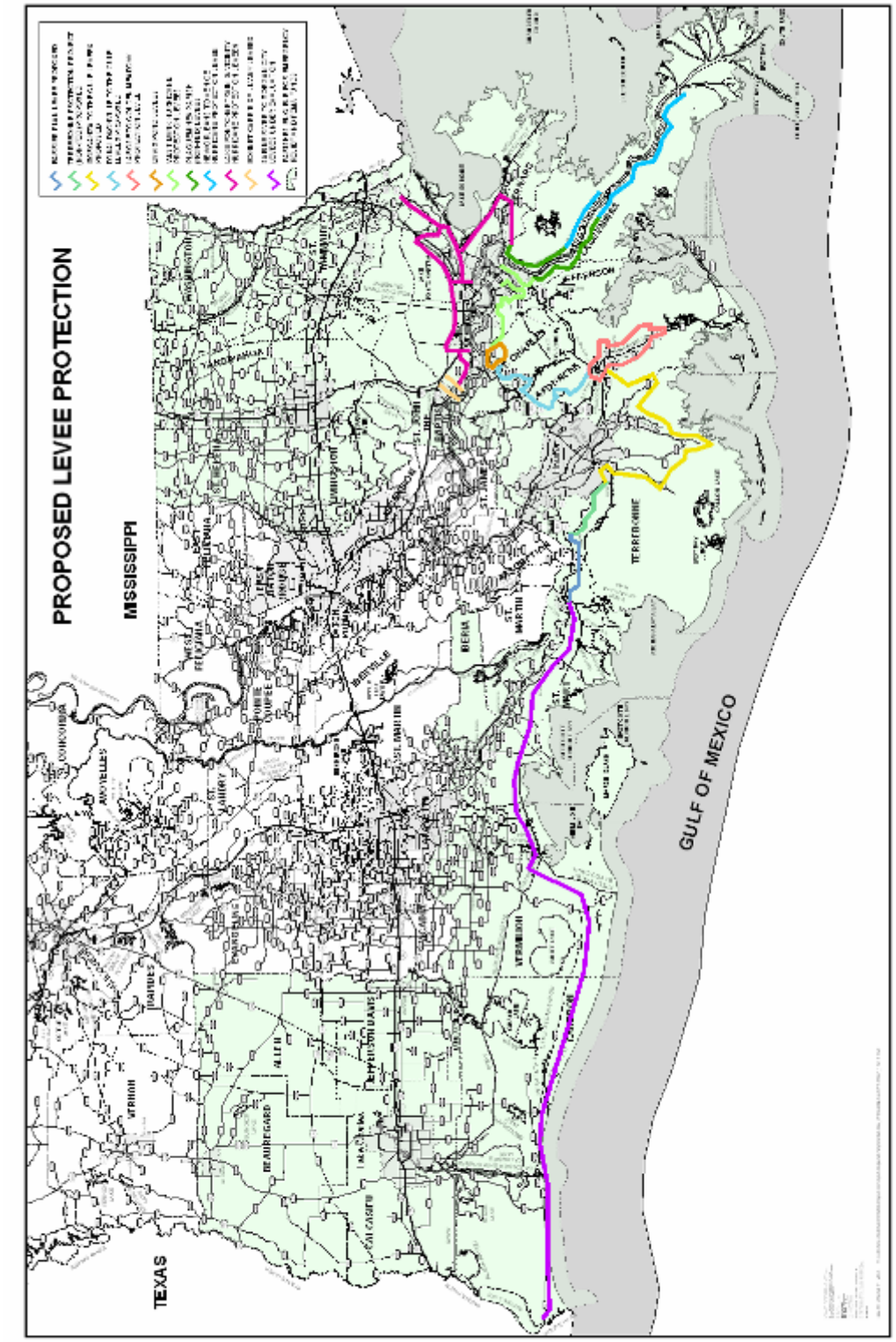
MISSISSIPPI
TEXAS
GULF OF MEXICO


PROPOSED LEVEE PROTECTION
MISSISSIPPI
TEXAS
GULF OF MEXICO

Special Appropriations Requests
Additional Information

Hurricane Recovery

Damage Repairs to Roads and Bridges:
Damages to roads both on and off the federal-aid system have been estimated for the following parishes – Allen, Beauregard, Calcasieu, Cameron, Iberia, Jefferson, Jefferson Davis, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. Helena, St. John the Baptist, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vermillion, and Washington. Repairs to roads and bridges on the federal-aid system are reimbursable through the FHWA with Emergency Relief (ER) funds. Repairs to roads and bridges off the federal-aid system are reimbursable through FEMA. Our current estimates are provided below:

	On Fed-Aid System (FHWA)	Off Fed-Aid System (FEMA)
Miles	4300	15,700
Debris Removal	$ 24 million	$ 87 million
Road Damage	$ 420 million	$255 million
Major Structure Damage	$ 643 million	-
Other Structure Damage	$ 14 million	$ 17 million
Total Repair Cost	$1,101 million	$359 million

Approximately 30 percent of the above estimate for federal-aid highways and over 60 percent for non federal-aid highways are based upon the assumption that the foundations of roadways submerged in flood waters for extended periods were damaged. The extent of the road network affected was determined through Geographic Information System (GIS) analyses for Jefferson, Orleans, Plaquemines, and Saint Bernard Parishes. Repair costs for federal-aid highways were estimated at $200,000 per lane-mile which includes not only pavement repairs, but also replacing damaged traffic signal equipment, roadway lighting, traffic signs, etc. Due to the much lower traffic volumes, particularly trucks, a unit repair cost of $75,000 per lane mile was used for non federal-aid roads and streets that were submerged.

In the appropriation of Emergency Relief funding through FHWA: (1) waive the $100 million limit on ER funding; (2) waive or extend the 180 day period for full reimbursement of eligible expenses; and (3) **specify replacement of the I-10 Twin Spans with a six-lane bridge.**

The section of Interstate 10 crossing the eastern end of Lake Pontchartrain (often referred to as the I-10 Twin Spans) was constructed in 1963 and was originally intended to be a six lane facility with no shoulders. It was striped for four lanes with shoulders due to safety concerns. The roadway on either side is six lanes; thus the Twin Spans are a bottleneck in the Interstate highway network. For bridges that require replacement, the Emergency Relief program provides for the upgrade of the facility to meet projected 20-year traffic demand. Therefore, inclusion of a specification for six lanes in the appropriation is within the intent of current law and is similar to what Florida received last year.

I-10 Twin Spans

Damage Repairs to Public Ports, Airports, Railroads, and Transit (US DOT or FEMA)

Public Ports

KATRINA: A total of $453 million is needed to repair public port infrastructure: Amount does not include tenant damages or enhancements. The following ports sustained infrastructure damage and need immediate repairs: Port of New Orleans ($403 million), Greater Lafourche Port ($7 million), St Bernard Port ($25 million), Plaquemines Parish Port ($10 million), and Port of South Louisiana ($7 million). Additionally, if the Mississippi River Gulf Outlet is closed to deep draft vessels, the relocation of public and private terminals will cost approximately $650 million ($275 for public terminals and $375 million for private terminals).

RITA: An additional $14 million is needed for the Port of Lake Charles as a result of Rita.

Further, we are requesting $20 million for costs associated with the temporary relocation of cargo transshipment while damaged facilities are under repair.

Public Airports

KATRINA: An estimated $270 million is still needed to repair public airport facilities (including interim capacity improvements at the Baton Rouge Metropolitan Airport). The cost to repair physical damages sustained by New Orleans International Airport is estimated at $55 million with another $90 million to cover loss of revenue, employee compensation, utilities, re-marketing, debt, etc. Baton Rouge Metropolitan Airport requires $32 million to sustain the increase in based aircraft. Collectively, the General Aviation airports of Lakefront, Bogalusa, Covington, Gonzales, Patterson, and Hammond have damages totaling $52 million. An additional $63 million is needed to fund expansions necessary to accommodate operations that are permanently relocating to Bogalusa, Reserve, Gonzales, Patterson, Galliano, Hammond, and Slidell. The FAA has issued initial grants of $15.2 million for New Orleans International and $6.8 million for the Lakefront Airport.

RITA: Wind damage to western Louisiana airports resulted in approximately $33 million in destruction at Lake Charles Regional, $32 million at Chennault, and over $3 million at five General Aviation airports (Sulphur, DeQuincy, DeRidder, Leesville, and Crowley). The FAA has issued an initial grant for $7.9 million to Lake Charles Regional.

Katrina - Hangar and Aircraft Damage at Lakefront Airport, New Orleans, La.

Rita – Hangar and Aircraft Damage at Lake Charles Regional Airport.

Rail Transportation

KATRINA:

Freight Rail: Need $62 million to repair damage to the New Orleans Public Belt Railroad equipment and infrastructure including operating losses. Railroad infrastructure has been critically damaged across the region. Rail cars and locomotives have derailed and were flooded. The Gentilly and Oliver Yards require toxic cleanup. Rail ballast has been washed away and existing track has shifted in many areas. Bridges must be checked for damage before full service resumes. An additional $148 million is needed for elevating track and improving bridges in preparation for future events to ensure the New Orleans rail gateway can quickly return to serving national commerce.

Commuter Rail Shuttle**:** Two trains with 600-passenger capacity between Baton Rouge and New Orleans will provide transportation daily for displaced evacuees to rebuild their residences while commuting to their jobs from the Greater Baton Rouge area. The cost to provide this service for three years is $63 million. This figure includes $25 million in operating funds and $28 million for track, signal, and grade crossing improvements. Stations and marketing costs are estimated at $10 million.

RITA: No significant damages to the publicly-owned freight rail facilities or equipment.

New Orleans Public Belt Railroad

Public Transportation

KATRINA: Need $770 million to repair public transit infrastructure, facilities, and equipment. Transit systems and facilities throughout Southeast Louisiana have been obliterated by Katrina. Total damages will exceed $770 million. This estimate includes replacing buses, vans, streetcars, catenary, and facilities, plus lost revenue for New Orleans Regional Transit Authority. Total costs for office and maintenance equipment are unknown as of October 11, 2005. Replacement costs may be reduced after insurance settlements have been finalized. A breakdown of the repair estimate is as follows:

New Orleans RTA Lost Revenues	$ 95,000,000
New Orleans RTA Facilities Repairs	$ 85,000,000
New Orleans RTA Buses and Vans	$586,714,000
Jefferson Parish Vehicles	$ 594,000
Plaquemines Parish Vehicles	$ 252,000
St. Bernard Parish Vehicles	$ 1,376,000
St. Charles Parish Vehicles	$ 168,000
St. Tammany Parish Vehicles	$ 588,000
TOTAL TRANSIT	**$769,692,000**

$4.5 million has been requested from FEMA through an Action Request dated September 29, 2005. This was for additional operating and capital assistance for transportation for the Rural, Elderly/Disabled and Small Urban Transit systems due to the influx of displaced persons.

RITA: We are currently assessing damages in the affected parishes. Damages run from minor to extreme on transit facilities and moderate damage to transit vehicles. No preliminary estimates are available.

Sunshine House facility. Mold growing on walls - St. Tammany, LA

Damage Repairs to Maritime System (USACE, USCG, NOAA)

KATRINA and RITA: According to the U.S.Corps of Engineers report, the total need for both hurricanes is $290.5 million to repair damages to the navigation system. Individual projects are listed below. Waterways were impacted by shoaling and sunken vessels. Locks were damaged and Aids to Navigation (ATONs) were destroyed. Lift bridges were damaged. Clearing the channels, getting the locks operational, and repairing ATONs are the top priorities for restoring the waterways to commerce.

The NOAA and the Corps are conducting side scan and hydrographic surveys of the waterways to determine obstructions and depths of the waterways. NOAA estimates the cost of surveying at $ 6 million. The Coast Guard is rebuilding the ATON system for mariner safety and estimates the cost of repairs will be approximately $10 million.

Barge atop Almonaster Bridge

Corps of Engineers
Emergency Supplemental Program for Navigable Waters

Project/Activity Name	Description of Work	Estimated Cost ($ 000)
Inner Harbor Navigation Canal Lock, LA	Damage on-site to ongoing construction of new lock, sediment sampling must be recollected	$12,500
Atchafalaya River & Bayous Chene, Boeuf and Black	Cumulative impacts from the Hurricane have damaged the waterway so that less than acceptable project dimensions are available. Full project dimensions are needed for access to major offshore infrastructure yards in the area.	$30,000
Barataria Bay Waterway Bar Channel	Impacts from hurricane have caused critical shoaling in the Barataria Waterway. Navigation through segment of channel provides only access between Port of Grand Isle, LA, and offshore oil and gas platforms	$5,000
Barataria Bay Waterway, Bayou Rigaud	Impacts from hurricane have caused critical shoaling in the Barataria Waterway. Navigation through segment of channel provides only access between Port of Grand Isle, LA, and offshore oil and gas platforms.	$5,000
Bayou Lafourche and Lafourche Jump Waterway	Port Fourchon, Belle Pass was impacted from Hurricane Katrina from critical shoaling in the entrance channel. Navigation through segment of channel provides the only access between Port Fourchon, LA. and offshore oil and gas platforms, Removal of sunken vessels and other obstructions.	$6,000
Calcasieu River & Pass, Bar Channel	Impacts from the storm caused shoaling near the jetties in the Bar Channel. The Calcasieu River project provides the only deep-draft access to the Port of Lake Charles, to ConocoPhillips and CITGO refineries that handle 4% of the nation's petroleum.	$15,000
Dredged Material Disposal Facilities	Repair numerous dredged material placement sites and disposal facilities in the Gulf Coast region damaged by Hurricane Katrina, critical to restore navigation in the region.	$30,000
Freshwater Bayou, Lock to Gulf of Mexico	Impacts from the storm have caused critical shoaling in the Freshwater Bayou area. Navigation through segment of channel provides access between Intracoastal City, LA, the Abbeville Harbor & Terminal District, and offshore oil and gas platforms.	$3,000
Gulf Intercoastal Waterway (GIWW)	Repair Hurricane damaged Levees overtopped by storm surge. These Levees are Corps owned. Lock repairs, including $12.5M for Inner Harbor old lock, due to storm surge and high winds. Remove sunken vessels. Dredging.	$20,000
Houma Navigation Canal, Cat Island Pass and Terrebonne Bay	Impacts from hurricane have caused critical shoaling in the Houma Navigation Channel. Navigation thru segment of channel provides only access between Port of Terrebonne, LA, and offshore oil and gas platforms.	$7,000
Mermentau River	Impacts from hurricane Katrina has caused critical shoaling in the Mermentau navigation Channel.	$5,000

Mississippi River - Outlets at Venice (MROV), Baptiste Collette Bayou	Impacts from hurricane have caused critical shoaling in channel. Navigation through segment of channel provides access between Venice, LA, and offshore oil and gas platforms. Channel also serves as GIWW Alternate Route when IHNC	$5,000
Mississippi River - Outlets at Venice (MROV), Tiger Pass	Impacts from hurricane have caused critical shoaling in channel. Navigation through segment of channel provides access between Venice, LA, and offshore oil and gas platforms. Channel also serves as GIWW Alternate Route when IHNC	$5,000
Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana	Impacts from the storm caused critical shoaling throughout the Southwest pass which is a critical Navigation channel providing ship access to the Mississippi River and survey and supply vessels access to offshore oil and gas platforms.	$60,000
Mississippi River Gulf Outlet, South Bank Foreshore Protection	Repair damages to jetties and shore/dike protection at various locations to enable safe passage of vessels in the GIWW Alternate Route.	$30,000
Removal of Sunken Vessels	Necessary to remove many sunken vessels in numerous Federal channels/waterways as a result of Hurricane Katrina that prevent resumption of navigation or will impact public safety.	$5,000
National Coastal Mapping Program (Lidar Bathymeter)	Re-survey of Gulf Coast region shoreline areas for national central data surveying data requirements to establish new profiles after hurricane using national program.	$2,000
Channel Improvement	Rehab Channel Improvement training and control works destroyed by Hurricane Katrina	$1,000
Channel Improvement	Repair Channel Improvement training works including Dikes, Revetments damaged by Hurricane Storm Surge.	$40,000
Mapping	New maps must be developed due to destruction of shoreline in aftermath of Katrina.	$3,000
Mississippi Delta - Caernarvon	Clear debris from channel	$1,000
	Total for Corps:	$290,500
United States Coast Guard		
Construction -rebuilding structures & ranges		$5,000
Equipment / Materials - new buoys, lights, etc.		$5,000
National Oceanic and Atmospheric Administration		
Surveying channels - GIWW (East to West) and Mississippi River (from Baton Rouge to approx. 20 into Gulf of Mexico		$6,000
Total for Repair of Louisiana's Navigable Waterways		$306,500

Assistance with LA 1 Improvements:
LA 1 is a strategic link in the national highway network and is critical to the energy supply of the United States. Without LA 1, access for equipment and support personnel for the hundreds of platforms producing 16 to 18 percent of this nation's oil and gas would be severely hampered. LA DOTD was ready to proceed with the upgrade of this highway as a toll facility. The project called for a new bridge at Leeville and a two-lane viaduct from Leeville south to Port Fourchon. A TIFIA loan was recently secured and toll revenue bonds were sold.

Due to the damage resulting from Hurricane Katrina, the financial viability of the project is in jeopardy. We are requesting that $120 million be appropriated to cover the cost of replacing the Leeville Bridge. The LA DOTD will fund the $60 million for the 2-lane viaduct from Leeville to Port Fourchon through a combination of regular federal-aid highway funds and toll revenues.

LA 1 at Leeville Bridge

Assistance with Population Surge in Baton Rouge, Lafayette, Houma, and Hammond
On September 8, 2005, a workshop was held to identify immediate and longer-term strategies and projects in East Baton Rouge Parish to address the recent surge in population. A similar workshop was held on September 12, 2005 for the surrounding parishes (Ascension, Iberville, Livingston, and West Baton Rouge).

A list of immediate needs totaling $176 million was identified and is presented below. Most of these items involve upgrading and coordinating traffic signals, traffic management, accelerating existing construction projects to 24/7 operations, minor geometric improvements such as adding turn lanes, expanding transit service and accommodating a very large influx of college students. The total has been reduced to $162 million due to the provision of funding through FEMA for expanded transit service.

In addition to a special appropriation for the immediate needs, we are requesting that $110 million in federal highway funds be front-loaded to Louisiana to fund capacity-related projects already programmed and funded over the next four to five years. The projects are listed below:

- I-10 widening, I-10/I-12 (Split) to Siegen Lane - $32 million
- LA 73, 3-laning, Ascension Parish - $14 million
- O'Neal Lane widening, Baton Rouge - $13.5 million
- I-12 @ Essen Lane Westbound Exit Ramp - $9 million
- Jones Creek widening, Tiger Bend to Coursey - $13 million
- Kaliste Saloom Road, Lafayette - $15 million
- Hollywood Road, Houma - $7 million
- LA 21 Bridge over Tchefuncta - $4.5 million
- LA 59 @ I-12 - $1 million

We do not have sufficient state monies to advance construct these projects. This strategy does not result in any net increase in funding from the federal government; rather, it provides earlier access to federal highway funds that Louisiana is going to receive anyway.

Baton Rouge is serving, and will continue to serve, as a major staging area for the recovery and reconstruction of the New Orleans Metropolitan Area. Interstate 10 and 12 are critical to the supply chain for this effort as well as for national commerce. We are therefore requesting a special appropriation of $650 million for the following three projects:

- Widen I-10, LA 415 to I-12 - $350 million
- Widen I-12, O'Neal Lane to LA 447 (Walker) - $150 million
- Widen I-10, I-12 to LA 22 - $150 million

Some of this work can begin very quickly because no right-of-way or utility relocations will be necessary. The widening of I-10 on either side of the Mississippi River Bridge will take longer; nevertheless, we need to begin the process as soon as possible.

Lafayette, Houma, and Hammond were also affected by a large influx of evacuees. It is reasonable to expect that these other areas will have similar immediate needs to those identified for the Baton Rouge area except on a smaller scale. Therefore we are requesting $50 million each for Lafayette and Houma, and $25 million for Hammond. We recently met with Lafayette officials to review their needs and confirmed that the $50 million estimate is reasonable.

IMMEDIATE NEEDS LIST FOR BATON ROUGE

Emergency Needs

ACTION ITEM / DETAILS	ESTIMATED COST (Millions)	
Access Management	**$10**	
Restrictions to Intersection / Medians		
Driveways Controls		
Temporary Signal Removals		
Use of Retainer Contracts for Permitting & Regulations		
Retrofit Projects (install raised medians)		
Expanded Transit Service	**$14**	**Funded through FEMA**
Park & Ride		
Car/Van Pools		
Free Pass		
Increase Special Needs Services		
Arterial Bus Lanes		
Expand Routes, Hours, & Reliability		
Include Taxi Vouchers		
Signal Upgrade	**$53**	
Timing Improvements		
Video Detection and Equipment Upgrades		
Accelerate Signal Upgrade Project Phases IV & V		
Identify and Upgrade other Vital Corridors		
Removal of Signals		
Traffic Control / Road Improvements	**$20**	
Signs, Striping, Shoulder Lanes		
New Turn Lanes		
Reversible Lanes		
Ramp Widening		
Variable Message Signs		
Traffic and Incident Management	**$40**	
More Surveillance Cameras		
Expand Motorist Assistance Patrols		
Additional Signs, Cones, & Barricades		
More Traffic Operations Personnel		
Demand Management (PR Company)	**$2**	
Encourage Flexible Hours		
Encourage Telecommuting		
Steer IT/Clear IT PSA		

Institute 511 Service		
Railroad Traffic Coordination to avoid peak periods		
Use Local Access Channel for Traffic Information		
Major College (LSU and Southern) Campus Improvements	**$17**	
Construct Pedestrian Tunnel on LA 30 - LSU		
Construct Corporate Canal Roadway - LSU		
Campus Loop Project - Southern		
Accelerate Projects Under Construction	**$20**	
Develop Funding Strategy for Long-Term Congestion Relief	**$0**	
Total of Emergency Needs	**$~~176~~**	**$162**

Critical Transportation Needs for Future Events

Highway Projects:
The preceding summary of special appropriations requests includes a number of highway projects that are critical in preparation for future hurricanes. Among these are the elevation of I-10 and I-610 on the eastbank and US 90 on the westbank. These routes are essential to pre-storm evacuation and post-storm rescue and recovery. Further, these roadways serve as a last refuge for citizens imperiled by floodwaters.

I-10 at I-610

Assistance with Populations Increase Anticipated for North Shore:
A population migration from New Orleans to the north shore of Lake Pontchartrain has been underway for many years. While north shore communities were hard hit by Hurricane Katrina, those areas are far less susceptible to flooding. Following the recovery, it is expected that the population migration will not only continue but accelerate, placing even greater strains on inadequate infrastructure. Therefore, we are requesting $75 million in short-term improvements similar in scope to those identified for Baton Rouge. In addition, we are requesting $375 million to widen three sections of I-12 and $100 million to widen one section of US 190 to ensure these vital arteries continue to flow.

Special Equipment for the Department of Transportation and Development:
Hurricane Katrina exposed the vulnerability of existing communication systems and the inadequacy of existing equipment. We are therefore requesting a $25 million appropriation for a satellite communications system and special equipment to improve our effectiveness in disaster response.

Critical Flood Protection Needs for Future Events

Hurricane Protection Levees:
A comprehensive hurricane protection system is necessary to protect Louisiana from tidal surges and rainfall events from Category 5 hurricanes. As Hurricanes Katrina and Rita showed, Louisiana is completely unprotected from storm events greater than Category 3. No uniform protection system exists to prevent tidal surges from inundating communities. Tidal surges are not limited to waters entering from the gulf through marsh environments but can be channeled through any water body that is in someway connected to the Gulf of Mexico. The Lake Pontchartrain & Vicinity Hurricane Protection Project provides storm protection from a Standard Project Hurricane, which correlates to a fast–moving Category 3 storm. This protection level is not adequate if a hurricane exceeds these project conditions. There are other hurricane protection systems located in the vicinity, but the protection levels are either similar or only protect from lesser strength storms.

The Corp of Engineers has been appropriated $1.3 to restore the levee system to pre-storm conditions. It is our understanding that the cost to restore the levees will be 100% federal with no cost to state or local agencies.

An estimated $18.9 billion will be required to complete and strengthen the levee system to provide Category 5 Hurricane protection in coastal Louisiana from Morgan City to Slidell. Costs for the individual sections are listed below:

Authorized Projects

• New Orleans to Venice	$1.6 billion
• Westbank in New Orleans	$1.65 billion
• Lake Pontchartrain and Vicinity	$3.95 billion
• Larose to Golden Meadow	$0.45 billion
• Grand Isle	$0.25 billion
• Southeast Louisiana Urban Flood Control	$0.95 billion
• Inner Harbor Navigation Canal in New Orleans	$1.3 billion

Pre-Authorization Studies

• Donaldsonville to Gulf of Mexico	$1.1 billion
• Morganza to Gulf of Mexico	$3.05 billion
• Lower Atchafalaya Basin	$3.6 billion
• St. Bernard Urban Flood Control	$0.1 billion
• St. Charles Urban Flood Control	$0.1 billion
• St. John the Baptist Urban Flood Control	$0.1 billion
• Plaquemines Parish	$0.1 billion

General Investigation (GI) Studies

• Lake Pontchartrain West Shore	$0.35 billion
• Lake Pontchartrain North Shore	$0.25 billion
Total	**$18.9 billion**

The proposed improvements will provide adequate protection for a storm surge of 20 to 25 feet. Raising the level of protection for a storm surge of 25 to 30 feet will be needed in critical areas. The storm surge from Hurricane Katrina, a Category 4 storm, impacted the Mississippi coast above 25 feet.

Levee Breach

As an alternative Category 5 Hurricane Protection Plan for Lake Pontchartrain, the Barrier Plan, would cost approximately $4 billion and includes the construction of a structure to close Lake Pontchartrain from tidal surges. This project could allow the three Lake Pontchartrain projects to remain as Category 3 protection, with the Barrier Plan providing Category 5 protection at comparable cost.

Not included in the above projects list is providing protection for the coastal parishes west of Morgan City. A separate study is needed to identify the appropriate level of protection needed to provide a comprehensive statewide hurricane protection system. This study would identify potential alignments and protection features necessary for the protection from storm surge.

Pumping Capacity:

An initial estimate of $200 million has been made to restore, rehabilitate and improve the existing pump stations. Once the pump stations are totally de-watered and inspected, a more detailed cost estimate can be prepared.